

Master 2.18

Extra Practice 1

Lesson 2.1: Representing Integers

1. Write the integer modelled by each set of tiles.

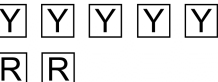
a) 

b) 

c) 

d) 

e) 

f) 

2. Use coloured tiles. Draw two different models for each integer.

a) -7

b) $+8$

c) -2

d) $+6$

3. Which integer is modelled by each set of tiles?

a) 5 yellow tiles and 13 red tiles

b) 28 yellow tiles and 24 red tiles

c) 15 yellow tiles and 8 red tiles

d) 37 yellow tiles and 41 red tiles

4. a) You have 3 yellow tiles and want to model -4 .

How many red tiles do you need?

b) You have 6 red tiles and want to model $+7$.

How many yellow tiles do you need?

c) You have 5 yellow tiles and want to model $+2$.

How many red tiles do you need?

d) You have 8 red tiles and want to model -5 .

How many yellow tiles do you need?

Extra Practice 2**Lesson 2.2: Adding Integers with Tiles**

Use coloured tiles.

1. Find each sum.

a) $(+6) + (-12)$

b) $(-10) + (-4)$

c) $(-8) + (-9)$

d) $(+11) + (+7)$

e) $(-13) + (+5)$

f) $(+12) + (-6)$

2. Represent each sentence with integers, then find each sum.

What does the sum represent?

a) The elevation of the base of the building is 345 m above sea level.
The building is 50 m high.**b)** The elevation of the base of the building is 75 m below sea level.
The building is 15 m high.**c)** The elevation of the top of the trench is 237 m below sea level.
The trench is 10 m deep.**d)** The elevation of the entrance to the mine is 1500 m above sea level.
The mine is 450 m deep.**3. These are the scores on each hole of mini-golf. Find the total score.**

Score	-2	+1	0	+3	-1	+2	-1	0	-2
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4. Complete each magic square.**a)**

		+3
	+2	
+1		-1

b)

-7			+8
	+6	-5	-3
	-1	+2	
	+3		+1

Master 2.20**Extra Practice 3****Lesson 2.3: Adding Integers on a Number Line**

1. Use a number line to add. Check with coloured tiles.

a) $(+4) + (-6)$

b) $(-5) + (-4)$

c) $(-7) + (+8)$

d) $(-10) + (+3)$

2. Use a pattern to find each sum.

a) $(+3) + (-4)$

b) $(+5) + (-6)$

c) $(-8) + (+3)$

d) $(-6) + (+8)$

3. Write an addition statement for each situation. Find the sum.

What does the sum represent?

a) The temperature in Victoria was $+15^{\circ}\text{C}$ in the afternoon.
By midnight, the temperature had dropped 8°C .

b) The temperature in Calgary was -10°C .
A Chinook caused the temperature to rise 12°C .

c) The temperature in Ottawa was -3°C .
A cold front passed and the temperature dropped 8°C .

d) The temperature in St. John's was -4°C at 4 a.m.
By noon, the temperature had risen 10°C .

4. Add.

a) $(+5) + (-12) + (-4)$

b) $(-7) + (+15) + (-12)$

c) $(-18) + (-3) + (+10)$

d) $(+9) + (-6) + (-7)$

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Extra Practice 4

Lesson 2.4: Subtracting Integers with Tiles

1. Use tiles to subtract.

a) $(+7) - (+4)$

b) $(-9) - (-5)$

c) $(+8) - (+12)$

d) $(-3) - (-8)$

e) $(+7) - (-3)$

f) $(-5) - (+4)$

2. What do you subtract from each integer to get the answer +4?

Use coloured tiles if they help.

a) +6

b) -3

c) +1

d) 0

3. What do you subtract from each integer in question 2 to get the answer -4?

4. Subtract.

a) $(-5) - (-8)$

b) $(-12) - (-4)$

c) $(+8) - (+11)$

d) $0 - (+3)$

e) $(-8) - (-5)$

f) $(+11) - (+8)$

5. Complete the magic square for a magic sum of 0.

Subtract -2 from each entry. Is it still a magic square?

-1		-3
		+2
+3	-4	

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Extra Practice 5

Lesson 2.5: Subtracting Integers on a Number Line

1. Use a number line to subtract.

a) $(-5) - (-4)$

b) $(-6) - (+3)$

c) $(+8) - (+12)$

d) $(+7) - (+2)$

e) $(-3) - (+5)$

e) $(-7) - (-8)$

2. Use patterns to subtract.

a) $(+4) - (-3)$

Start with $(+4) - (+1)$.

b) $(-2) - (+5)$

Start with $(+6) - (+5)$.

c) $(+5) - (+8)$

Start with $(+9) - (+8)$.

3. Find the difference between:

a) Mount Everest, Nepal, at 8850 m above sea level and Java Trench, Indian Ocean, 7125 m below sea level

b) Puerto Rico Trench, Atlantic Ocean at 8648 m below sea level and Java Trench, Indian Ocean, 7125 m below sea level

c) An airplane cruising at an altitude of 3500 m and a submarine at a depth 975 m

d) A kite at an altitude of 112 m and a bird at an altitude of 145 m

4. The difference between $(+56)$ and $(+45)$ is -11 .

a) Write the subtraction statement.

b) Write another subtraction statement using two negative integers with this difference.

c) Write another subtraction statement using a positive integer and a negative integer with this difference.